FIG. 1

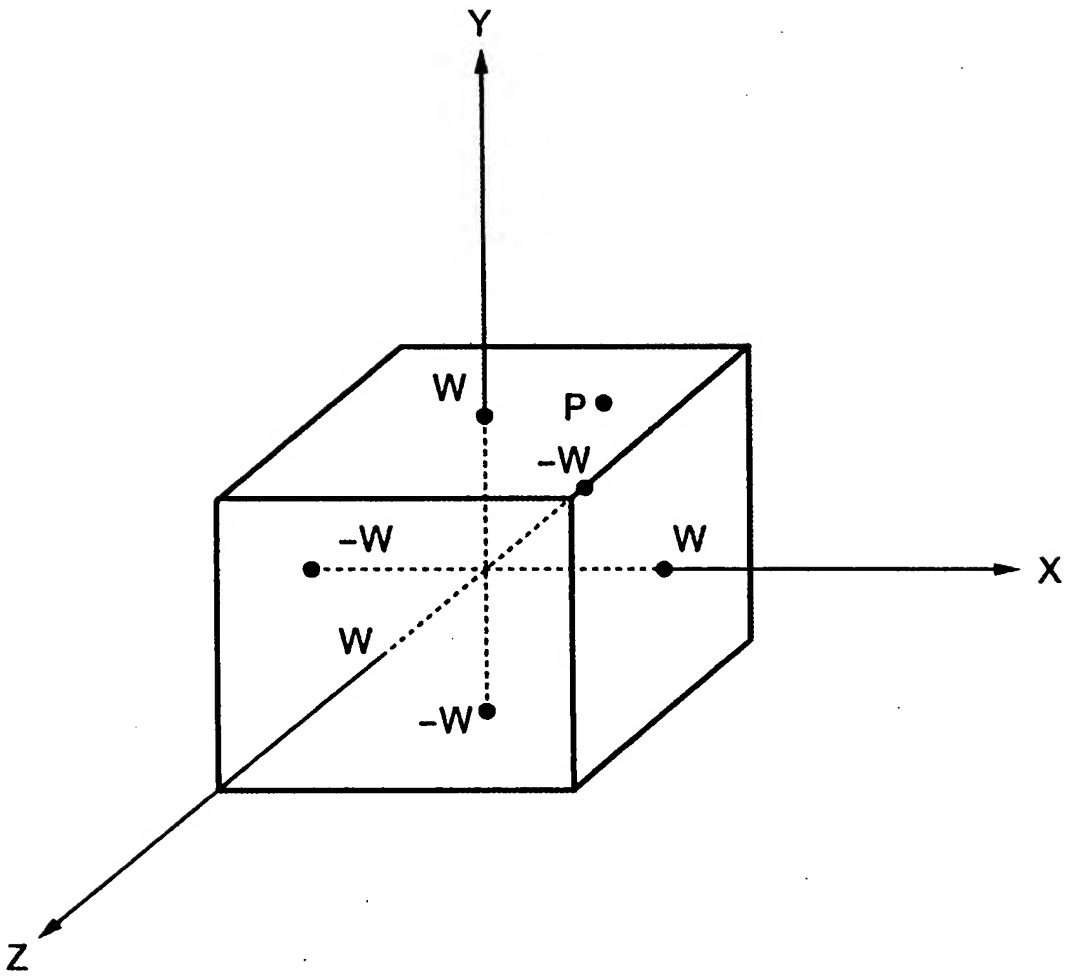


FIG. 2

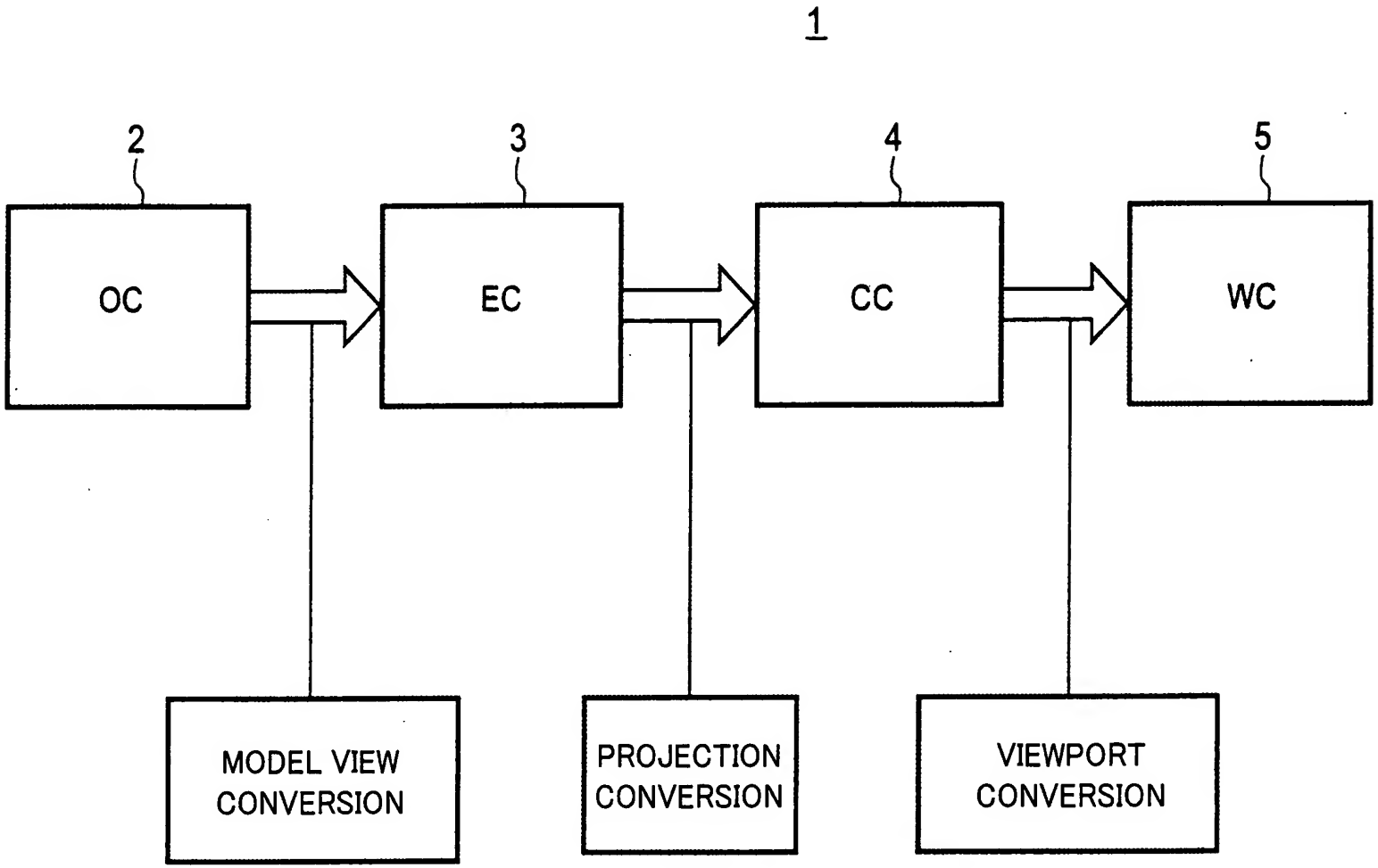

1
2
3
4
5
OC
EC
CC
WC
MODEL VIEW CONVERSION
PROJECTION CONVERSION
VIEWPORT CONVERSION

FIG. 3

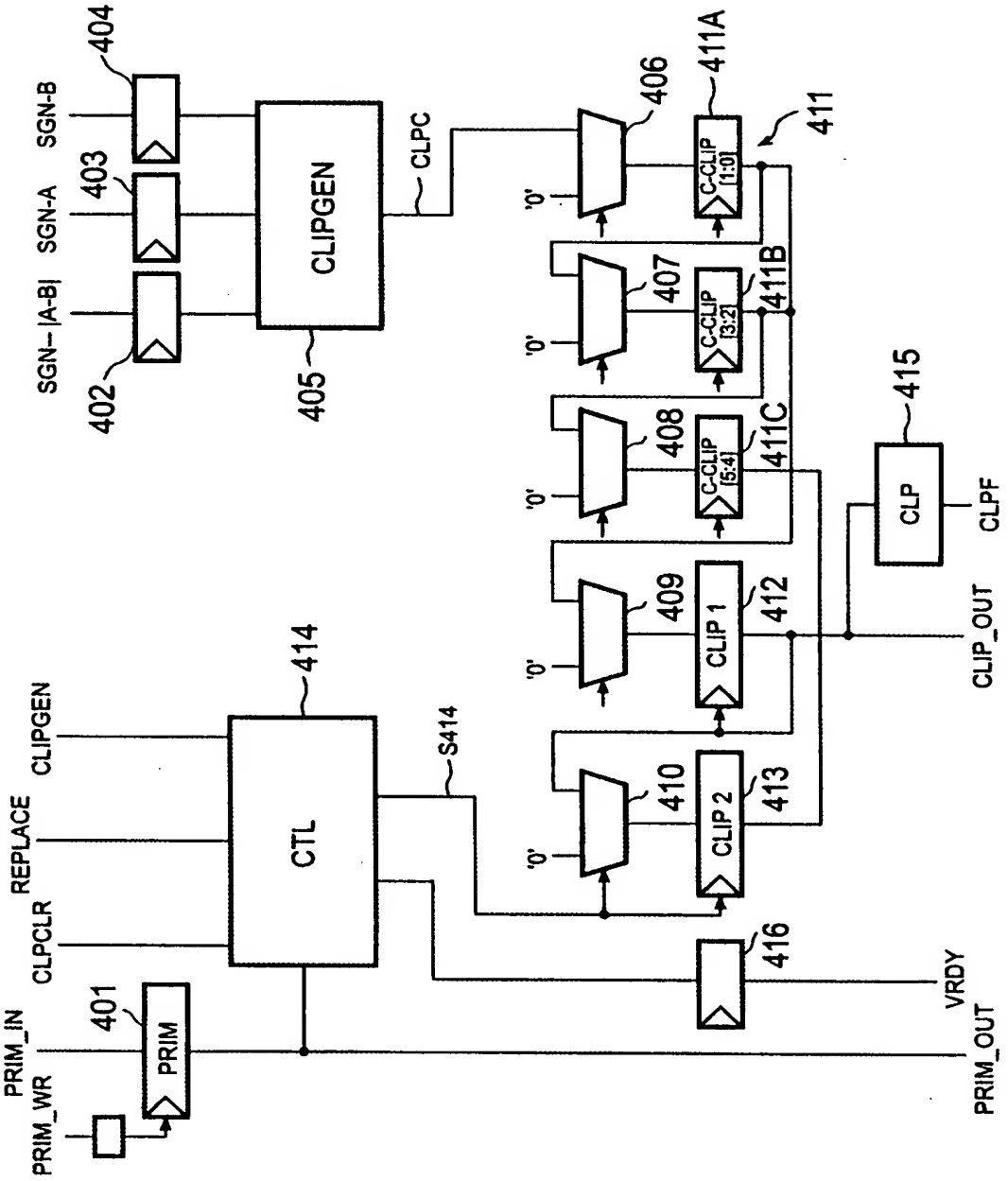

PRIM_WR
PRIM_IN
CLPCLR
REPLACE
CLIPGEN
SGN-|A-B|
SGN-A
SGN-B
PRIM
CTL
CLIPGEN
CLP
C-CLIP [1:0]
C-CLIP [3:2]
C-CLIP [5:4]
CLIP 1
CLIP 2
'0'
401
402
403
404
405
406
407
408
409
410
411
411A
411B
411C
412
413
414
415
416
S414
CLPC
CLIP_OUT
CLPF
VRDY
PRIM_OUT

FIG. 4

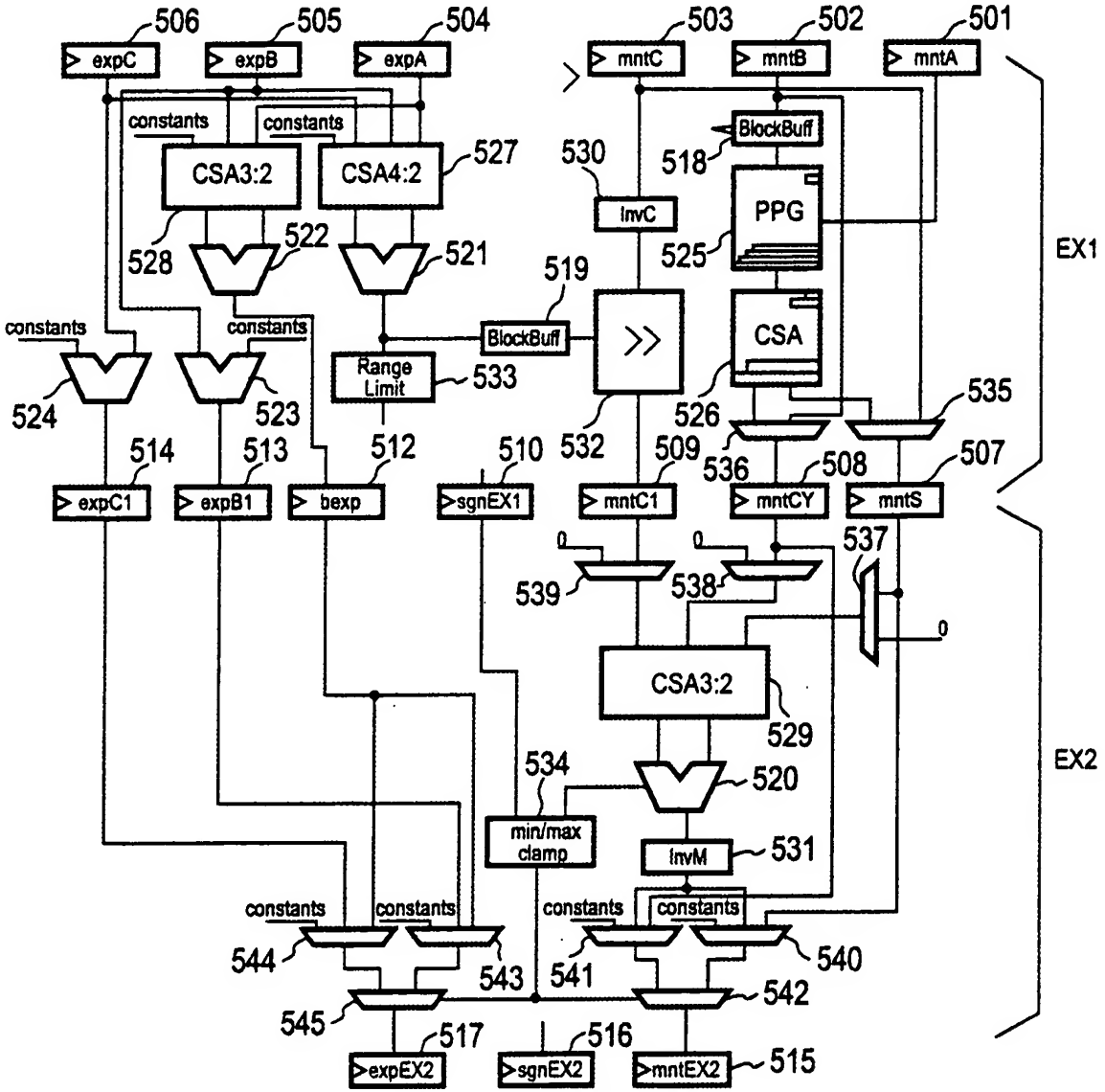

506
505
504
503
502
501
expC
expB
expA
mntC
mntB
mntA
constants
constants
BlockBuff
530
518
CSA3:2
CSA4:2
527
PPG
invC
528
522
521
525
EX1
519
constants
constants
BlockBuff
CSA
524
523
Range Limit
533
526
535
514
513
512
510
532
509
536
508
507
expC1
expB1
bexp
sgnEX1
mntC1
mntCY
mntS
537
539
538
CSA3:2
529
534
520
min/max clamp
invM
531
constants
constants
constants
constants
544
543
541
540
542
545
517
516
515
expEX2
sgnEX2
mntEX2
EX2

FIG. 5

SIGN OF |A|-|B|	SIGN OF A	SIGN OF B	CLPC	
			A<-B JUDGMENT	A>B JUDGMENT
0	0	0	0	1
0	0	1	0	1
0	1	0	1	0
0	1	1	1	0
1	0	0	0	0
1	0	1	1	1
1	1	0	0	0
1	1	1	1	1

FIG. 6

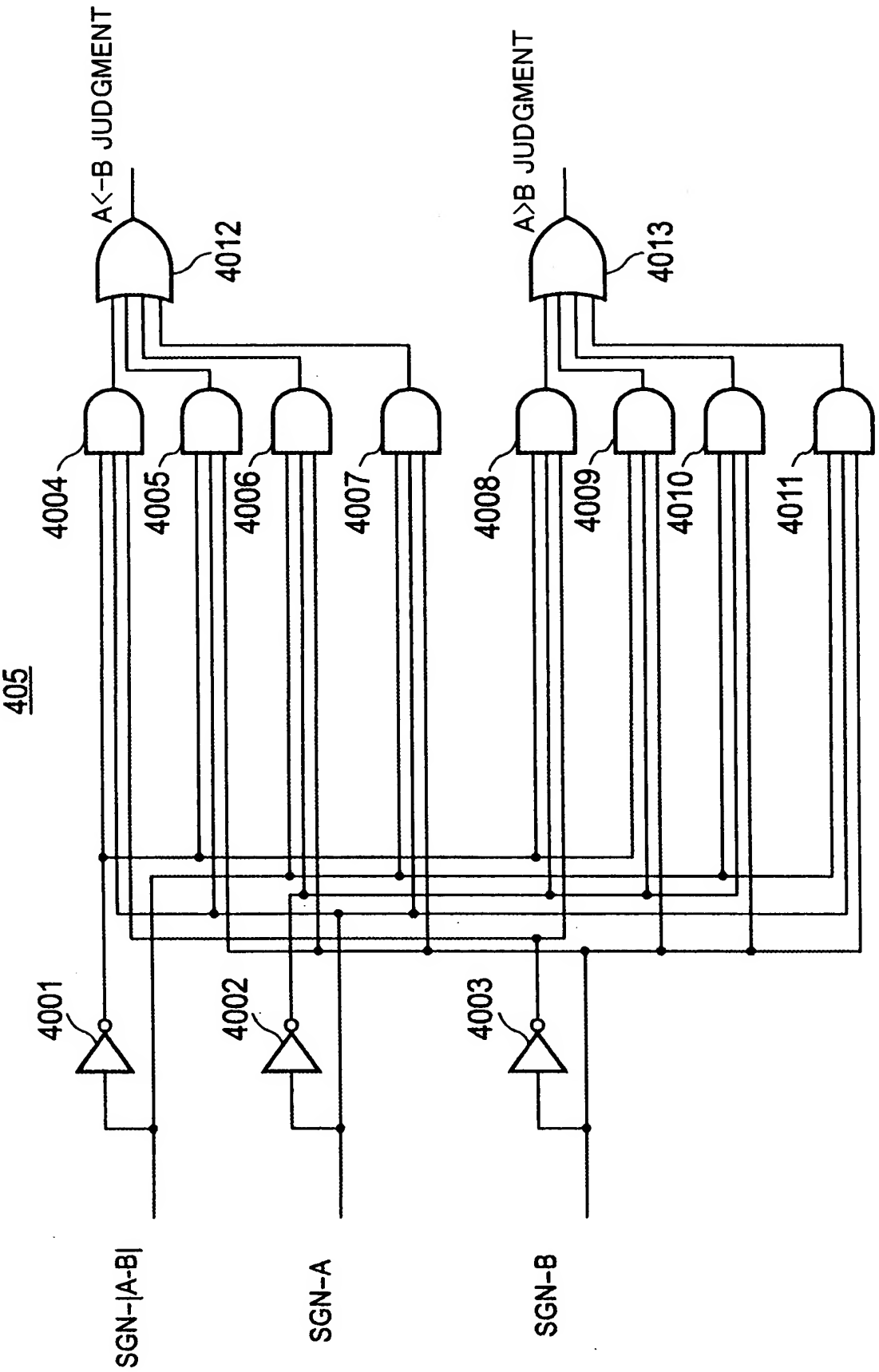

405
A<-B JUDGMENT
A>B JUDGMENT
4001
4002
4003
4004
4005
4006
4007
4008
4009
4010
4011
4012
4013
SGN-|A-B|
SGN-A
SGN-B

FIG. 7

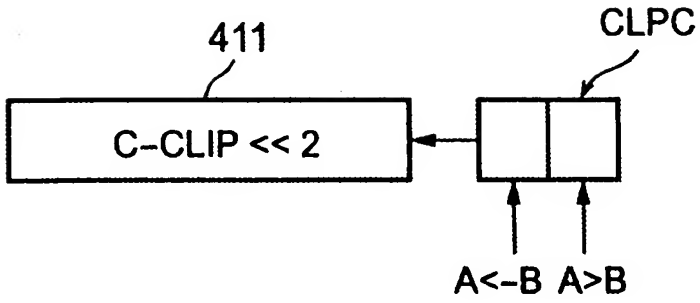


FIG. 8

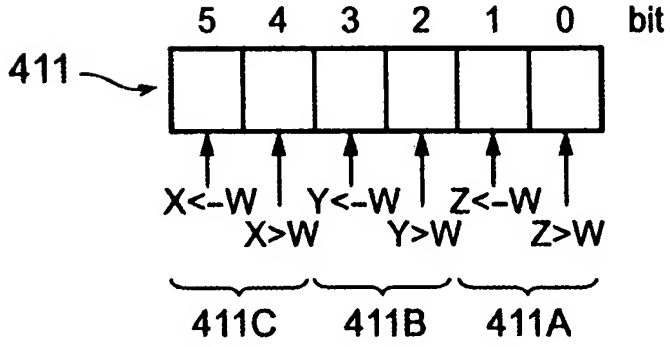


FIG. 9

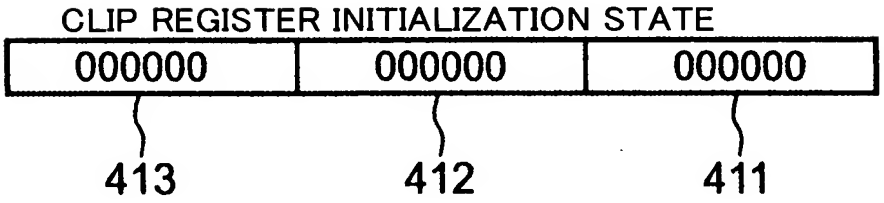


FIG. 10

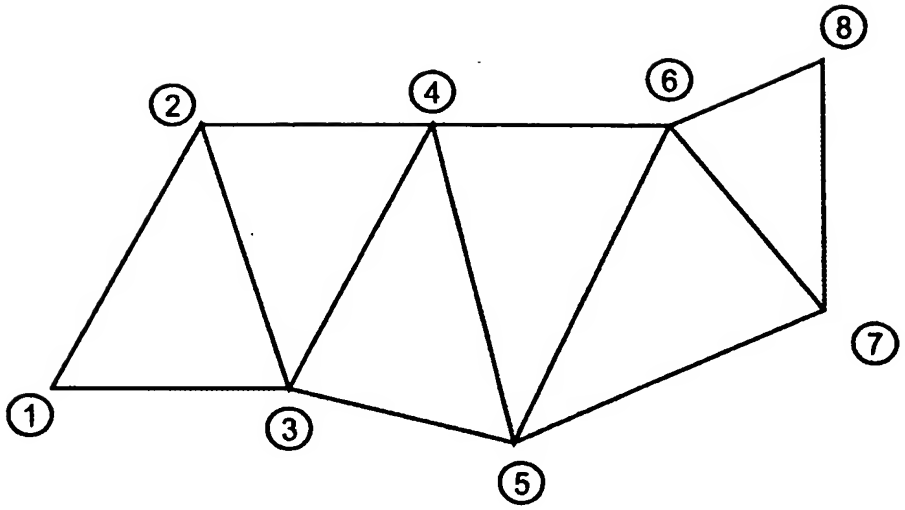


FIG. 11

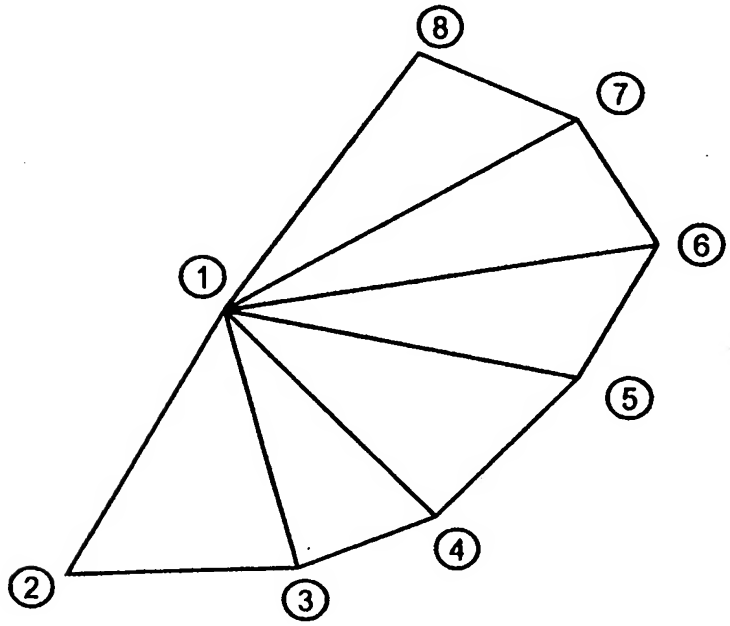


FIG. 12A

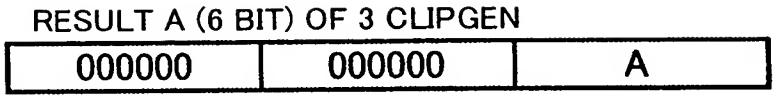


FIG. 12B

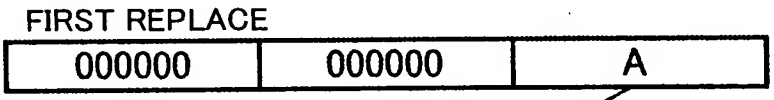


FIG. 12C

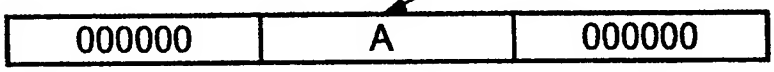


FIG. 12D

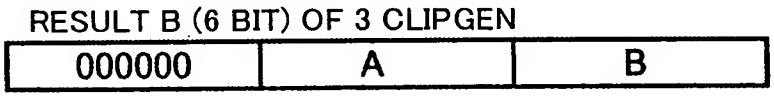


FIG. 12E

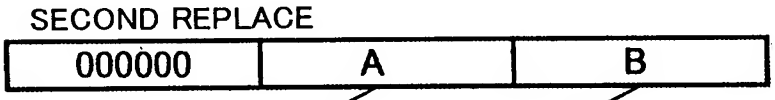


FIG. 12F

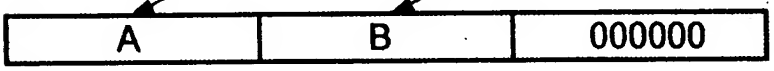
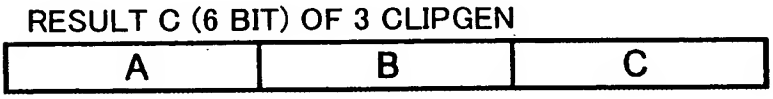


FIG. 12G



CASE OF TRIANGLE STRIP, THIRD AND FOLLOWING REPLACE

FIG. 13A

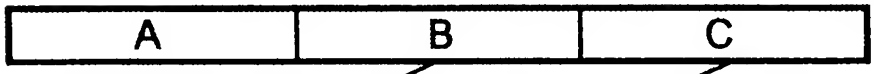


FIG. 13B

CASE OF TRIANGLE FAN, THIRD AND FOLLOWING REPLACE

FIG. 13C

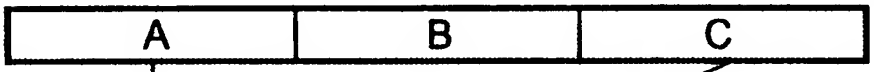


FIG. 13D

CASE OF TRIANGLE, RETURN TO INITIALIZATION STATE FOR EVERY THIRD REPLACE

FIG. 13E

FIG. 14A

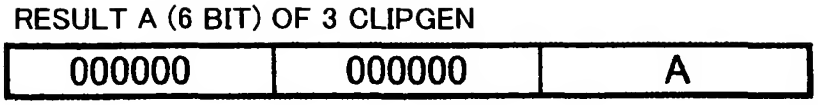


FIG. 14B

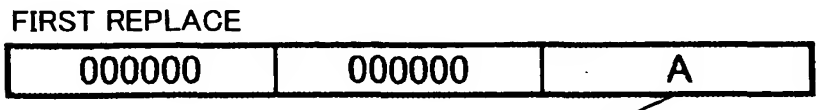


FIG. 14C

FIG. 14D

FIG. 15A

FIG. 15B

FIG. 15C

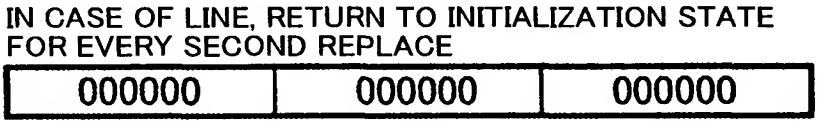


FIG. 16A

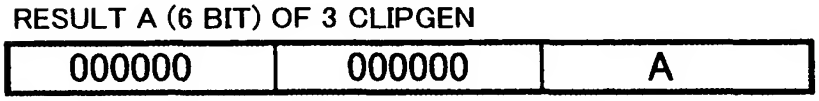


FIG. 16B

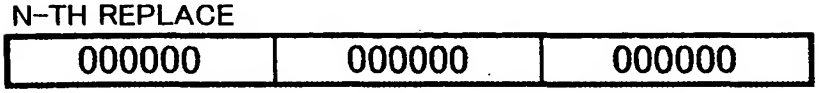


FIG. 17

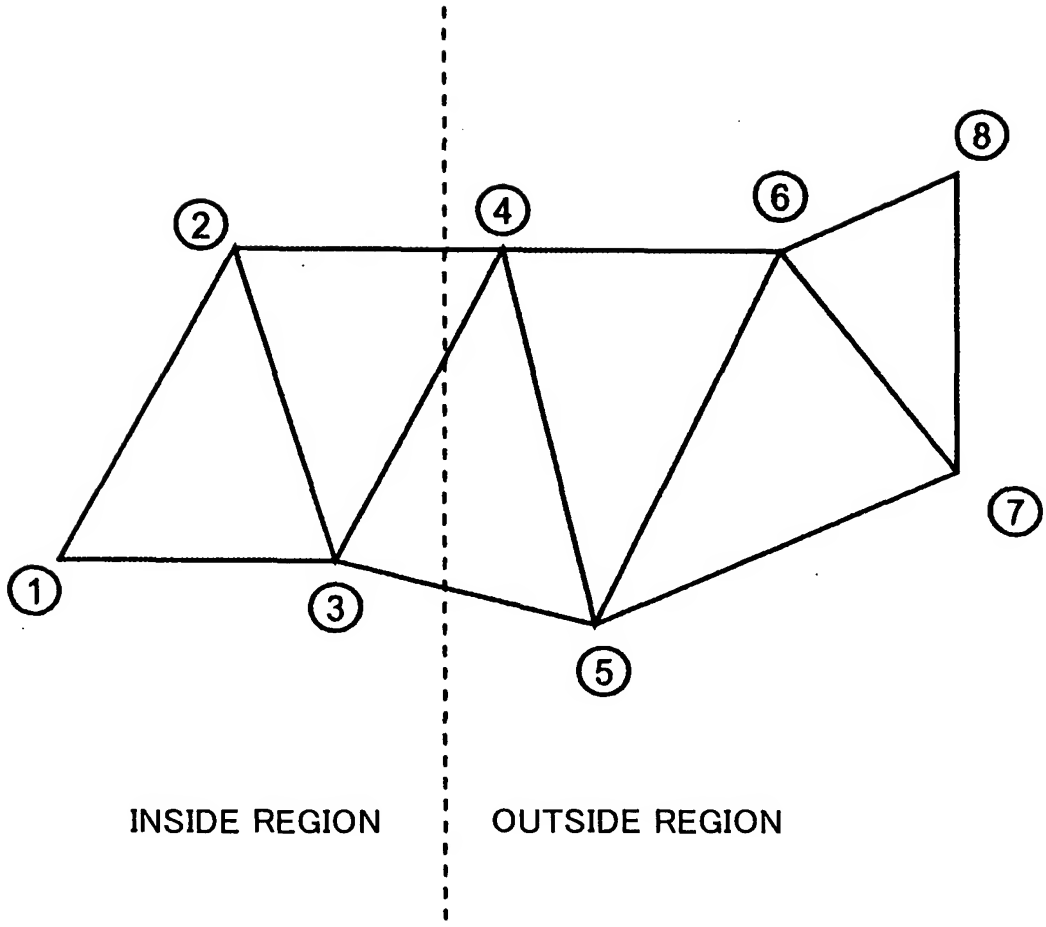


FIG. 18

		1	2	3	4	5	6	7	8
PRIMITIVE	PS	R	R	R	R	R	R	R	R
TRIANGLE_STRIP	0	0	1	1	1	1	1	1	1
TRIANGLE_FAN	0	0	1	1	1	1	1	1	1
TRIANGLE	0	0	1	0	0	1	0	0	1
LINE_STRIP	0	1	1	1	1	1	1	1	1
LINE	0	1	0	1	0	1	0	1	0
POINT	1	1	1	1	1	1	1	1	1

- PS: AFTER PRIMSET
- R: AFTER REPLACE